

NOV 28 2006

Application No.: 10/779,302

Docket No.: JCLA10577

REMARKS**Present Status of the Application**

This is a full and timely response to the outstanding non-final Office Action mailed on August 29, 2006. The Office Action rejected claims 1-20 under 35 U.S.C. 102(b) as being anticipated by Grummon et al. (U.S. Patent No. 6,341,341, "Grummon" hereinafter).

Applicant submits that independent claims 1, 7, 13, and 19 have been amended to arrive at the claimed subject matter without introducing any new matter, and the other claims remain unchanged from their original forms. The amended claims are fully supported by the specification. After entry of the foregoing amendments, claims 1-20 remain pending in the present application, and reconsideration of said claims is courteously requested.

Discussion of Office Action Rejection

The Office Action rejected claims 1-20 under 35 U.S.C. 102(b) as being anticipated by Grummon. Applicant respectfully traverses the rejection addressed to claims 1-20 for at least the reasons set forth below.

Independent claim 1, as amended, states,
(Emphasis added)

A storage system with a snapshot-backup capability, externally coupled to a main system, comprising:

a storage device including ...; and

Application No.: 10/779,302

Docket No.: JCLA10577

a storage controlling unit for...thereby backing up each different previously stored data from the first data block to the second data block...(Emphasis added)

FIG. 1 of the Applicant's invention teaches that the data storage system 150 is *externally coupled to the main system 100*. Moreover, as recited in lines 15-19, page 6 of the specification, "(in the present invention,) every data storage system 150 equips the storage controlling unit 160 with the ability to directly make a snapshot-backup on the incoming storage data without taking too much main system resource and without having the SMS running on the main system 100 "

The Examiner asserted that the storage controlling unit 160 in the storage system 150 corresponds to the I/O subsystem (FIG.1, 112 ; FIG.2, 112) disclosed in Grummon, while Applicant does not agree with said assertion. The I/O subsystem 112 in FIG. 1 provided by Grummon is incorporated with the computer system processor 100, while the data storage system 150 of the Applicant's invention is externally coupled to the main system 100. In other words, Grummon neither teaches nor discloses that the storage system is apart from the main system.

Accordingly, either the CPU 108 or the operating system 104 of the computer system processor 100 is still required to enable the snapshot-backup operation to be executed by the I/O subsystem 112, thus increasing the burden of the computer system processor 100.

As regards the Examiner's allegation that the Applicant's claim 1 reciting "thereby backing up each **different previously stored data** from the first data block to the second data block" has already been taught by Grummon, Applicant respectfully disagrees. After a careful review, the

Application No.: 10/779,302

Docket No.: JCLA10577

disclosure, upon which the office action relied, Col. 6, Lines 30-32 in Grummon, merely states "the container manager copies the unmodified block from the read-write container 210 to the backing store container 212", while it never suggests nor teaches "backing up each different previously stored data".

Therefore, claim 1, upon entry of current amendments in this response, and its dependent claims 2-6, are neither taught nor suggested by Grummon, rendering claims 1-6 allowable.

Arguments made for other independent claims 7,13, and 19 are similar to that of claim 1. To sum up, Applicant holds the opinion that the storage system is separated from the main system, yet the Grummon reference does not teach or suggest said fact. Therefore, the I/O subsystem 112 disclosed therein requires either the CPU 108 in the computer system processor 100 or the operating system 104 therein to operate the snapshot-backup, resulting in a burden to the computer system processor 100 and in excessive consumption of resources. Furthermore, Grummon never suggests nor teaches "backing up each different previously stored data".

Based on the above, it is submitted that issues as to the independent claims 7, 13, 19 as currently amended and its dependent claims 8-12, 14-18, 20 have been addressed and all rejections have been overcome, thus in proper condition to be allowed.

NOV 28 2006

Application No.: 10/779,302

Docket No.: JCLA10577

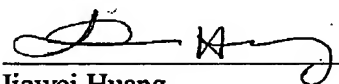
CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-20 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Date: 11/28/2006

4 Venture, Suite 250
Irvine, CA 92618
Tel.: (949) 660-0761
Fax: (949)-660-0809

Respectfully submitted,
J.C. PATENTS



Jiawei Huang
Registration No. 43,330